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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES



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County Commissioners, Courthouse, Missoula, MT 59801
County Sheriff, Courthouse, Missoula, MT 59802
Information Unit, Department of Health and Environmental Sciences,
Helena, MT 59620
Environmental Information Center, P. O. Box 1184, Helena, MT 59624
Montana Historical Society, 225 N. Roberts, Helena, MT 59601
Bruce Suenrum, Missoula Rural Fire District, 2521 South Ave. West,
Missoula, MT 59801
Department of Highways, John E. Marron, Traffic Engineer, Missoula,
MT 59801
Department of Fish and Game, 3309 Brook Street, Missoula, MT 59801
Robert Banks, Frenchtown Public School District #40, Frenchtown,
MT 59834

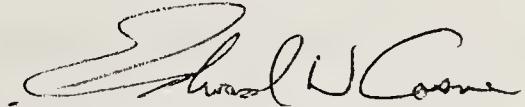
RE: Churchill Downs and Belmont Addition

Ladies and Gentlemen:

The enclosed preliminary environmental review has been prepared for Churchill Downs and Belmont Addition in Missoula County and is submitted for your consideration. Questions and comments will be

accepted until February 23, 1982. One extension of time not to exceed seven days will be granted upon request if there is sufficient reason for the request. All comments should be sent to the undersigned.

Sincerely,



Edward W. Casne, P.E., Chief
Subdivision Bureau
Environmental Sciences Division

EWC/JAS/jjg

Enclosure



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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Cogswell Building, Helena, Montana 59601
(406)449-3946

PRELIMINARY ENVIRONMENTAL REVIEW

Division/Bureau Environmental Sciences Division/Subdivision Bureau

Project or Application Churchill Downs and Belmont Addition

Description of Project The developers propose to create 57 single family lots in the Churchill Downs, 45 single family lots in the Belmont Addition. In addition to the first two phases, the master plan includes 23.7 acres for commercial, 7.01 acres for neighborhood commercial, 12.19 acres for multi-family dwellings at 16 dwellings per acre and 58.66 acres for mobile homes at 6 dwellings per acre.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
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1. Terrestrial & aquatic life and habitats
2. Water quality, quantity and distribution
3. Geology & soil quality, stability and moisture
4. Vegetation cover, quantity and quality
5. Aesthetics
6. Air quality
7. Unique, endangered, fragile, or limited environmental resources
8. Demands on environmental resources of land, water, air & energy
9. Historical and archaeological sites

		X				
	X					
		X				
		X				
		X				
	X					
			X			
	X					
					X	

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores			X			
2. Cultural uniqueness and diversity				X		
3. Local and state tax base & tax revenue			X			
4. Agricultural or industrial production			X			
5. Human health					X	
6. Quantity and distribution of community and personal income				X		
7. Access to and quality of recreational and wilderness activities				X		
8. Quantity and distribution of employment			X			
9. Distribution and density of population and housing			X			
10. Demands for government services	X					
11. Industrial & commercial activity		X				
12. Demands for energy			X			
13. Locally adopted environmental plans & goals			X			
14. Transportation networks & traffic flows		X				

Other groups or agencies contacted or which may have overlapping jurisdiction Missoula County Planning Board, Missoula

County Health Department and Water Quality Bureau, Montana Department of Health and Environmental Sciences.

Individuals or groups contributing to this PER. Contributors are noted in the

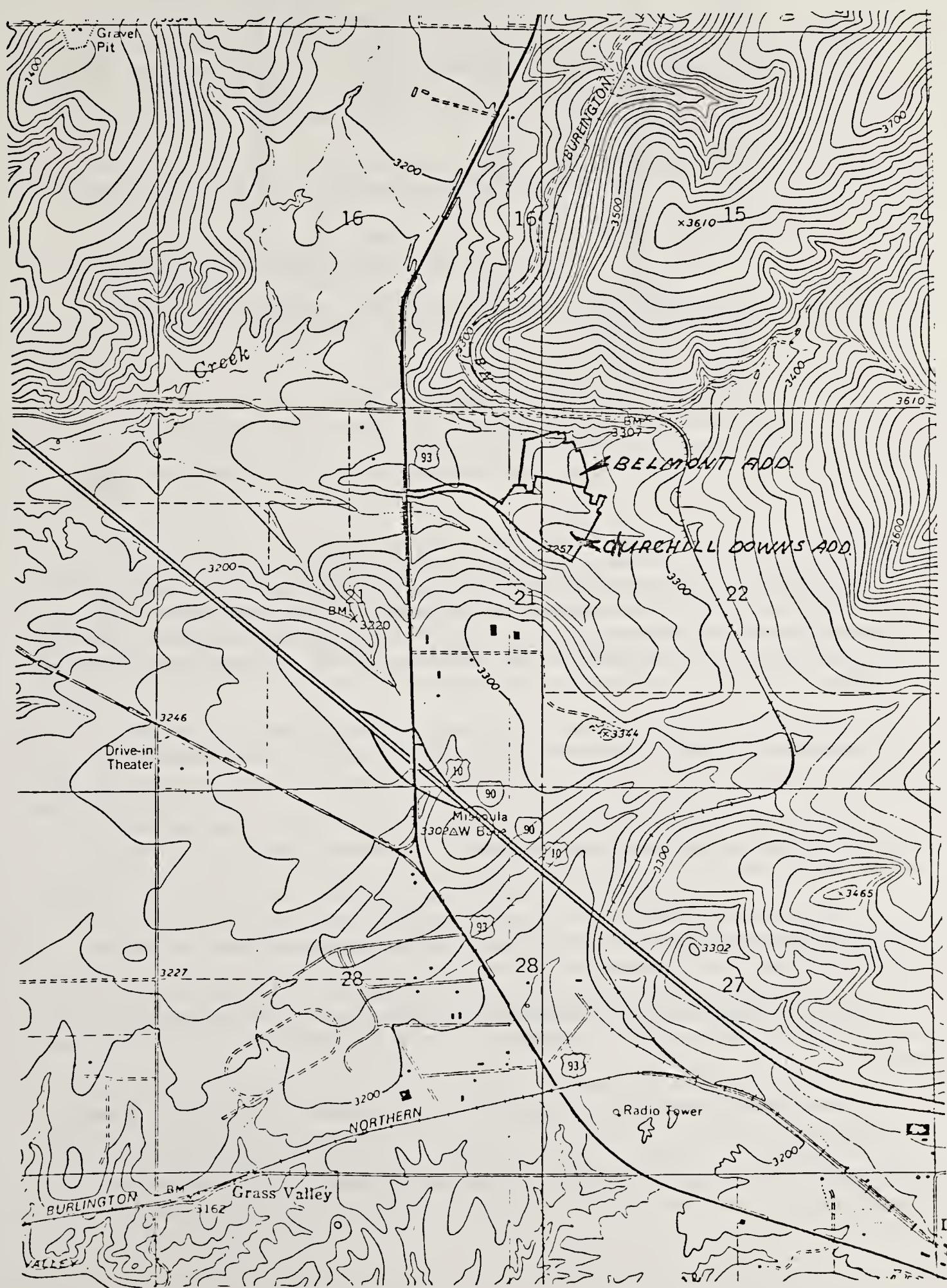
Preliminary Environmental Review

Recommendation concerning preparation of EIS Recommend against the preparation of an Environmental Impact Statement.

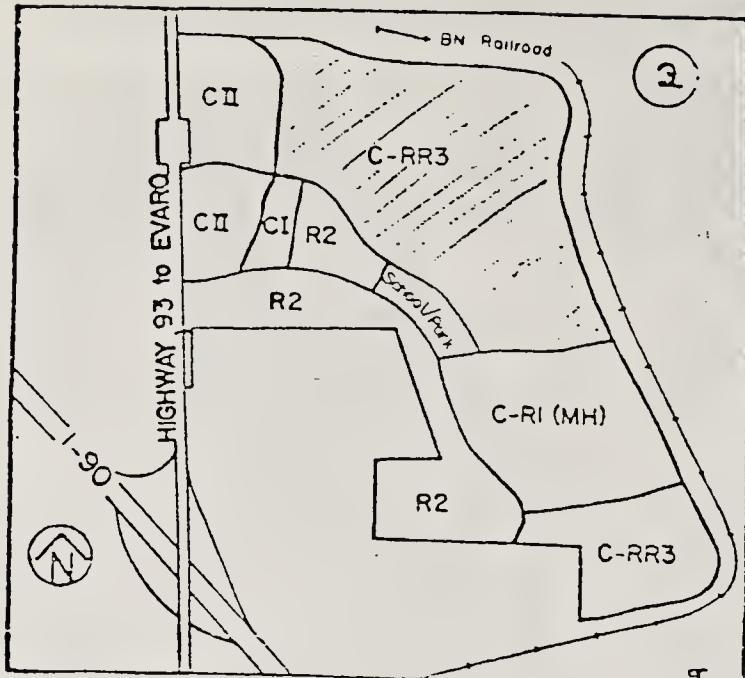
PER Prepared by: Joseph A. Strasko, R.S.

Date: February 3, 1982

VICINITY MAP



VICINITY MAP



This vicinity map provides an overall view of the complete subdivision plan. Each area has been zoned for specific development. The following is an explanation of the intended land use of each phase and corresponds to the letter and number reference noted on the above vicinity map:

C-RR3 - The proposed location of the Churchill Downs and Belmont single family residence area consisting of 102 lots. Total land area is 132.52 acres.

C-RI (MH) - This area is for a proposed mobile home overlay with a maximum density of 6 dwellings per acre. The total land area is 58.66 acres.

C-RR3 - This phase is for proposed single family residences with a maximum density of 4 dwellings per acre. The total land area is 34.14 acres.

C-R2 - Proposed for multi family dwellings with a maximum of 16 dwelling units per acre. The total land area for this phase is 62.54 acres.

C-C1 - This phase is for neighborhood commercial with a total area of 7.01 acres.

C-C2 - Phase is for commercial development and consists of 23.70 acres.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

1. Terrestrial and Aquatic Life and Habitats

The area of the proposed subdivision is currently used for production of hay and dry land pasture. The area is not known to be a critical habitat for wildlife or any endangered species. Known wildlife species consist of common birds and mammals. The area is occasionally used by hungarian partridge and coyotes.

There should not be an impact on aquatic life since natural water systems do not run through the development area.

2. Water Quality, Quantity and Distribution

According to Sorenson and Company, the development will be served by a community water system. In the Environmental Assessment they state that:

"The system, depending on well output, will utilize scattered well sites for a centralized well field with a reservoir. If a centralized well field is used, the water will either be gravity feed to homes or a booster pump will be utilized."

Specification for well construction have been submitted to the Water Quality Bureau in accordance to "Recommended Standards for Water Works" and have been reviewed and approved. After construction, a drawdown report and required water analysis will be required to determine if the aquifer has an acceptable quantity and quality of water to serve this proposed development. This department will not approve any subdivision unless information is provided substantiating that an acceptable aquifer exists.

A community water system is proposed for Phase 1 and 2 providing 350 gallons per day/per household for 103 lots for a total of 36,050 gallons per day.

The water system proposed for Phases 1 and 2 is two wells drilled adjacent to the subject property providing 75 gallons per minute and 30 gallons per minute at a well depth of 100 to 300 feet.

Sorenson and Company state that the proposed sewage disposal system for Phase 1 and 2 will consist of a package treatment plant for central primary treatment and a common drainfield for secondary treatment. Each house will utilize a 4 inch service line leading to an 8 inch sewer main designed in accordance to Ten State Standards.

As additional Phases are developed, treatment facilities will be expanded and possibly relocated. Sorenson and Company's preferred option for total development is drainfield disposal. However, aerated lagoons and sprinkler irrigation is one of their options. This Department will not approve either option for sewage disposal until it is demonstrated with necessary soils testing and groundwater monitoring that groundwater will not be contaminated.

The developer will install the water and sewer systems. Sorenson and Company have stated that both systems will be owned and operated by the Homeowner's Association or private utility company. This Department requires that ownership of the public water and sewer system be in accordance with FHA Bulletin 1300.

According to Sorenson and Company storm drainage will be channeled off-site utilizing gutters. A portion of the runoff will be retained on-site utilizing french drains.

The ultimate destination for runoff from this development will be O'Keefe Creek. Sorenson and Company were not able to speculate on the need or size of retention ponds. However, they stated that if a retention pond is used, it will be designed to release runoff at a rate which does not exceed the natural discharge rate. Therefore, they feel impacts on existing drainage structures and down slope property should be negligible.

3. Geology and Soil Quality, Stability and Moisture

According to the Community and Environmental Assessment prepared by Sorenson and Company, there are no unusual soils, topographic or geologic conditions on the property which limit the capacity for building or excavation using ordinary and reasonable construction techniques.

Comments received from L. T. Stem, United States Department of Agriculture, Soil Conservation Service, stated that:

"The soils in this area are derived from tertiary aged sediments and are high in clay. Road subgrades and building foundations should be designed to compensate for the subsoil materials."

According to the Missoula County Comprehensive Plan on the Wye/O'Keefe Creek area the majority of the subdivision is located in the Class 2 area and the northern portion of Belmont Addition is located in the Class 3 area. The following are interpretations for Class 2 and 3 areas designated by the Missoula County Comprehensive Plan.

Class 2: Moderate Hazards

These are areas where local geologic variability or topographic variability make it impossible to accurately represent local variation in percolation hazard at map scale. In some instances, insufficient soils or geologic data are present upon which to classify such variability. In all cases, this unit should be considered as one in which further detailed site work is necessary to prove suitability or non-suitability for septic field designs or surface permeability impairment. In general, these are areas of Tertiary bedrock units or Quaternary Lake Missoula sediments that are locally impermeable and contain numerous lenses of silts or clay that will impede downward percolation of waste waters and will locally perch the groundwater tables. Geologic and soils mapping is not done to sufficient detail to delimit each of the lenses and

thus local site surveys are required for adequate hazard consideration.

Class 3: Severe Hazards

These are areas where high groundwater tables (less than 48:) at least seasonally and/or steep slopes (greater than 15 percent) and/or moderate to low infiltration rates and soil permeabilities make utilization of septic drainfields unwise. These are generally upland areas of hills and mountains with thin soils and shallow bedrock of low permeability. The steeper slopes create conditions where subsurface drainage will intersect the ground surface at least seasonally, thus defeating the filtering value of soils for sewage. Glacial tills with significant fine materials to impede infiltration and floodplain areas with high groundwater tables are also included in this category of hazard. Higher densities on Hazard Class 3 slopes will cause erosion through reduction in infiltration due to roading and other land uses.

Within the Class 3 area, small pockets of higher permeability soil materials may occur, such as along a portion of the TV Peak Road east of Evaro Hill where a capping of Tertiary gravels is found. However, these are not suitable sites for large-scale residential use because these gravels serve as an aquifer and would be easily polluted by septic fields since their total volume is low and the gradients are steep.

4. Vegetation Cover, Quantity and Quality

The Missoula Comprehensive Plan indicates that the vegetation in the WYE/O'Keefe Creek area consists of grassland vegetations. Most of the grassland is natural and is adapted to low precipitation patterns of the valley bottoms found throughout western Montana. These grasslands provide grazing lands for ranches in the area, they also provide hay meadows.

According to Sorenson and Company, this specific site consists of grass dominated by alfalfa mixture.

5. Aesthetics

Aesthetics is a highly subjective issue and there is very little agreement as to whether any housing or commercial projects detracts or enhances the beauty of a property. The aesthetic appeal of the project will depend a large part on the measures taken to keep natural foliage, restore damaged areas quickly and maintain buildings and roads after occupancy.

6. Air Quality

Air quality could deteriorate with a high density use of wood burning stoves. Roads are proposed to be paved within the subdivision.

This should keep any dust created by traffic flows to a minimum.

7. Unique, Endangered, Fragile, or Limited Environmental Resources

The primary area of concern is the potential for impact on the water table due to subsurface sewage disposal and the associated aquifer.

8. Demands on Environmental Resources of Land, Water, Air & Energy

Rural subdivisions require more energy and material than urban expansions due to lower density and required extensions of roads and utilities. Home owners at this development will consume more gasoline commuting to jobs and shopping centers than will residences of Missoula's central district.

If approved plans for water supply, sewage disposal, storm runoff control and solid waste disposal are not followed, water quality may be adversely affected. Smoke generated from fireplaces could damage air quality. However, there should be no unique resource or energy demands as a result of this subdivision.

9. Historical and Archaeological Sites

Although the Montana Historical Society states that there are no reported sites within the proposed subdivision area, they recommend that a systematic survey be conducted within the planned area.

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

1. Social Structures and Mores

It is difficult to determine the final impact that development will have on social structures and mores. Such an impact would seem to be dependent on the people who will purchase the lots. However, it would seem reasonable to assume that these lots would be purchased by people whose social or moral values are atypical of the general community.

2. Cultural Uniqueness and Diversity

No comment.

3. Local and State Tax Base & Tax Revenue

According to the information provided in the Environmental Assessment, this is in an agricultural land classification. The current tax revenue is about \$1.15 per acre. The expected annual revenue at full development of Churchill Downs and Belmont Addition is \$120,236.

4. Agricultural or Industrial Production

The current use of the property is dry land pasture. It is being taken out of agriculture because of an identified need for a planned community reflected in the adopted comprehensive plan for the area. Two phases of this development will be used for commercial and neighborhood commercial development.

5. Human Health

Unknown

6. Quantity and Distribution of Community and Personal Income

This is a difficult impact to access as it is not known from where future residents might come or where they would be employed. Some may already live in the Missoula area and have little if any impact with respect to distribution of income. Residents coming from areas outside the Missoula area would cause an increase in community income and an increase in employment and commercial activity. Since two phases of this development will be used for commercial and neighborhood commercial, an impact in relationship to quality and distribution of community and personal income would be a positive one.

7. Access to and Quality of Recreational and Wilderness Activities

There is no known direct access to public lands through this subdivision.

8. Quantity and Distribution of Employment

It is probable that most new home sales would result from a general increase growth of the Missoula area and not a shift of population. Therefore, a substantial growth of community income should result upon occupancy of the total area.

9. Distribution and Density of Population and Housing

According to Nicholaus P. Kaufman, Sorenson and Company, the County Comprehensive Plan covers a 20 year period. Based upon the County's work, he estimates the following 20 year development:

Area I, Zoned C-RR3 - consists of Churchill Downs and Belmont Addition with a total of 132.52 acres for single family dwellings. This area should develop steadily over the next 5 to 10 years.

Area II & III, Zoned C-C2 - consists of 40.35 acres is to be used for commercial. This area should develop over the next 10 to 15 years.

Area IV, Zoned C-C1 - consists of 7.01 acres is to be used for neighborhood commercial. This area should develop within the 20 year county plan.

Area V, VI & VII, Zoned C-R2 - consists of 71.75 acres to be used for multiple family dwellings with 16 dwelling units per acre. This area should develop within the 20 year plan and is a function of the overall rate of development of the region. Area VII is indicated for school/park use.

Area VIII, Zoned C-R1 (MH) - consists of 58.66 acres to be used for a mobile home overlay with 6 dwellings per acre. This should develop over the next 5 to 10 years.

Area IX, Zoned C-RR3 - consists of 34.14 acres and is to be used for single family dwellings with a density of 4 dwellings per acre. This area should develop within the 20 years plan.

10. Demands for Government Services

The Frenchtown School District #40 has expressed the following concerns about the total development of this subdivision as provided by Mr. Robert Banks, Superintendent:

"If the proposal is approved in it's entirety, it could have a devastating effect on our school district. It would certainly require additional building to house the influx of students and at the present time, we have just completed a new high school which leaves virtually no bonding base available for additional building. It is possible that the 57 lots in Church Hill Downs and the 45 lots in Belmont Addition would result in approximately 150 to 250 students in the district which we probably could accommodate with our present facilities. However, we fear that once the project is approved, they will be able to go ahead with the total development including the mobile development, thus overburdening the school district to house these additional students without the benefit of an added tax base for additional building, therefore, the Frenchtown School District is in opposition to the development."

Raymond Froehlich, Missoula County Sheriff, stated that:

"the Missoula County Sheriff's Department would have prime responsibility for police protection."

He added:

"The population of Missoula County as reflected by the 1980 census is 76,016 of which some 43,000 reside within the County; and at the present time the number of patrolmen on duty each shift amounts to six officers and the present police population ratio for this department is 1.25 officers per 1,000 population with the national average being 2.5 officers per 1,000. It is noted that this development will contain approximately 649 family units in addition to the commercial development and

utilizing the basic ratio of 3.5 persons per unit, this would increase the population by some 2271 persons. At our present level of staffing, it would then require an additional 2.84 officers to police this increase in population.

Each and every year finds new budgetary problems to overcome in just keeping abreast of the skyrocketing inflation rates, and this problem does not seem to lessen, specifically when we continue to utilize 1976 property evaluation figures and are limited by law to 25 mils. I do not think that I have any choice but to provide police services to all citizens within the County of Missoula; however, I continue to see a constant rise in subdivision development and the adequacy of this service is going to be entirely dependent upon the availability of funding for this department."

Comments were not received from Chief Hegel, Frenchtown Rural Fire District. However, Bruce Suenrum, Fire Chief, Missoula Rural Fire District stated:

"the preliminary plat of Valley West Planned Community is not in Missoula Rural Fire District."

He added the following comments:

"The developer should be required to build a fire station and equip it, if Chief Hegel feels that is appropriate.

Roads should not be constructed where grade exceeds 15 percent.

There is no discussion of fire flow, hydrant spacing or fire flow duration in the data submitted. There should be standards included for the residential, commercial and school areas. Chief Hegel should be consulted.

Missoula Rural Fire District has a station 4.4 miles from the intersection of Waldo Road and Highway 93. An additional station in this development should only be considered if Chief Hegel feels that it is required. Apparatus and men are available to Frenchtown from Missoula Rural Fire District through mutual aid. Automatic aid might be given some consideration.

A fuel break should be considered between this development and the railroad.

Two separate ingress-egress routes should be required."

11. Industrial & Commercial Activity

The planned commercial and neighborhood phases will have a favorable impact on employment and community income.

12. Demands for Energy

Telephone service will be provided by Mountain Bell Telephone Company.

Electricity and natural gas will be provided by Montana Power and Missoula Electric Co-op since a portion of the subdivision lies within the Missoula Electric Co-op jurisdiction.

Don Mourich, Missoula Office, Montana Power Company stated that they will be able to provide electricity and natural gas to the area which lies within their jurisdiction.

13. Locally Adopted Environmental Plans & Goals

This subdivision is located within the Missoula Comprehensive Plan area for the Wye-O'Keefe Creek area and has been zoned for residential and commercial as proposed for development.

14. Transportation Networks & Traffic Flows

The following information was provided by John E. Marron, Traffic Engineer, Montana Department of Highways:

"The present subdivision plans call for two and possibly three approaches on to U.S. 93. With the projected traffic volumes for the subdivisions, it appears that left turn bays and acceleration and deceleration lanes will be required. The design work and construction for the bays and lanes will be completed and paid for by the developer and approved by Department of Highways.

At the present time there is a 36 inch culvert under U.S. 93. If it appears that the development of these two subdivisions will cause the drainage to exceed the capacity of this culvert, then it will be the responsibility of the developer to replace this culvert with one that will adequately handle the water.

The developer has informally inquired about daylighting the cut section located between the two main approaches. We would have no objection to this proposal since it would improve the sight distance to the middle approach.

The developer will be required to obtain approach and encroachment permits for any work that is done on the public right of way. These permits are available at our Division Office here in Missoula.

As you are probably aware, the Department of Highways has future plans to reconstruct this portion of U.S. 93 to four lanes. However, this reconstruction is at

least 6 or 7 years away, and even then is very much dependent on the availability of highway funds."

